

GC 42

Safety Data Sheet

according to the WHS Regulations

Issue date: 02/06/2023

Revision date: 02/06/2023

Version: 2.0

SECTION 1: Product identifier

1.1. GHS Product identifier

Product form Mixture
Name GC 42
Product code BU Direct Fastening



1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use For professional use only
Propellant for direct fastening tools.

1.4. Details of manufacturer or importer

Supplier

Hilti (Aust.) Pty. Ltd.
Level 5, 1G Homebush Bay Drive
P.O. Box 3217
Rhodes NSW 2138
Australia
T +61 131 292 - F +61 1300 135 042
serviceaustralia@hilti.com

Department issuing data specification sheet:

Hilti Entwicklungsgesellschaft mbH
Hiltistrasse 6
Kaufering 86916
Deutschland
T +49 8191 906310 - F +49 8191 90176310
df-hse@hilti.com

1.5. Emergency phone number

Emergency number Emergency contact (24 hours per day)
GBK GmbH Global Regulatory Compliance +49 (0)6132-84463

SECTION 2: Hazard identification

2.1. Classification of the hazardous chemical

Classification according to the model Work Health and Safety Regulations (WHS Regulations)

Flammable gases, Category 1A H220
Gases under pressure : Compressed gas H280

2.2. GHS Label elements, including precautionary statements

Hazard pictograms (GHS AU)



Flame Gas cylinder

Signal word (GHS AU)

Danger

Hazard statements (GHS AU)

H220 - Extremely flammable gas
H280 - Contains gas under pressure; may explode if heated
P102 - Keep out of reach of children.

Precautionary statements (GHS AU)

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
No smoking.
P211 - Do not spray on an open flame or other ignition source.
P251 - Do not pierce or burn, even after use.
P381 - In case of leakage, eliminate all ignition sources.
P403 - Store in a well-ventilated place.
P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

GC 42

Safety Data Sheet

according to the WHS Regulations

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3: Composition and information on ingredients

Name	CAS-No.	%	Classification according to the model Work Health and Safety Regulations (WHS Regulations)
isobutane	75-28-5	55 - <65	Flam. Gas 1A, H220 Press. Gas (Comp.), H280
propene	115-07-1	20 - <30	Flam. Gas 1A, H220 Press. Gas (Comp.), H280
Propane	74-98-6	5 - <15	Flam. Gas 1A, H220 Press. Gas (Comp.), H280

SECTION 4: First aid measures

4.1. Description of necessary first-aid measures

First-aid measures general	Take off immediately all contaminated clothing.
First-aid measures after inhalation	Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	Gently wash with plenty of soap and water.
First-aid measures after eye contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.
First-aid measures after ingestion	Immediately consult a doctor/medical service.

4.2. Symptoms caused by exposure

No additional information available

4.3. Medical attention and special treatment

Other medical advice or treatment	Treat symptomatically.
-----------------------------------	------------------------

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media	Carbon dioxide. Water spray. Dry powder. Alcohol resistant foam.
Unsuitable extinguishing media	Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Explosion hazard	Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.
General measures	Evacuate area. Remove ignition sources.
Hazardous decomposition products in case of fire	On burning: release of (highly) toxic gases/vapours. Thermal decomposition generates : Carbon dioxide. Carbon monoxide.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	DO NOT fight fire when fire reaches explosives. Evacuate area.
Protection during firefighting	Do not enter fire area without proper protective equipment, including respiratory protection. Self-contained breathing apparatus.
Other information	EN 12942. EN 12941.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	Evacuate area. Remove ignition sources.
------------------	---

GC 42

Safety Data Sheet

according to the WHS Regulations

6.1.1. For non-emergency personnel

Emergency procedures
Ventilate spillage area. Evacuate area. No open flames, no sparks, and no smoking.

6.1.2. For emergency responders

Protective equipment
Do not attempt to take action without suitable protective equipment. Breathing apparatus.

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters.

6.3. Methods and materials for containment and cleaning up

Methods for cleaning up
Do not flush with water.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed
Flammable gas. Do not pierce or burn, even after use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Precautions for safe handling
Do not spray on an open flame or other ignition source. Avoid contact with skin, eyes and clothing. Do not breathe vapours. Prevent the build-up of electrostatic charge.

Hygiene measures
Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures
Proper grounding procedures to avoid static electricity should be followed.

Storage conditions
Keep cool. Protect from sunlight. Keep in fireproof place. Store in dry protected location to prevent any moisture contact.

Incompatible materials
Heat sources. Direct sunlight. Sources of ignition.

Storage temperature
5 – 25 °C

Heat and ignition sources
Keep away from heat and direct sunlight. Keep away from ignition sources.

Information on mixed storage
Do not store with DX powder cartridges.

SECTION 8: Exposure controls and personal protection

8.1. Control parameters - exposure standards

No additional information available

8.2. Monitoring methods

No additional information available

8.3. Engineering controls

Appropriate engineering controls
Ensure good ventilation of the work station.

8.4. Individual protection measures, such as personal protective equipment (PPE)

Hand protection
In case of repeated or prolonged contact wear gloves

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	3 (> 60 minutes)	0,12		EN ISO 374

Eye protection
Chemical goggles or safety glasses. ISO 16321-1. EN 170

Skin and body protection
When using cartridge operated tools, sufficient ear protection must be worn.

Respiratory protection
No respiratory protection needed under normal use conditions

Personal protective equipment symbol(s)



GC 42

Safety Data Sheet

according to the WHS Regulations

SECTION 9: Physical and chemical properties

Physical state	Gas
Appearance	No data available
Colour	Colourless
Odour	Sweet
Odour threshold	No data available
pH	No data available
pH solution	No data available
Relative evaporation rate (butylacetate=1)	No data available
Melting point / Freezing point	No data available
Boiling point	No data available
Flash point	No data available
Auto-ignition temperature	No data available
Flammability	No data available
Vapour pressure	Vapour pressure: 8300 hPa
Relative density	No data available
Density	Density: 0.6 g/cm ³ (DIN 51757)
Solubility	insoluble in water.
Partition coefficient n-octanol/water (Log Pow)	No data available
Explosive properties	Product is not explosive. In use, may form flammable/explosive vapour-air mixture.
Explosive limits	No data available
Minimum ignition energy	No data available
Fat solubility	No data available
Gas group	Gases under pressure : Compressed gas

SECTION 10: Stability and reactivity

Reactivity	No additional information available
Chemical stability	Extremely flammable aerosol. Contains gas under pressure; may explode if heated. Extreme risk of explosion by shock, friction, fire or other sources of ignition.
Possibility of hazardous reactions	No additional information available
Conditions to avoid	Heat. Sparks. Open flame. Direct sunlight. Overheating.
Incompatible materials	No additional information available
Hazardous decomposition products	No additional information available

SECTION 11: Toxicological information

Acute toxicity (oral)	Not classifiedBased on available data, the classification criteria are not met
Acute toxicity (dermal)	Not classifiedBased on available data, the classification criteria are not met
Acute toxicity (inhalation)	Not classifiedBased on available data, the classification criteria are not met

isobutane (75-28-5)	
LC50 Inhalation - Rat [ppm]	> 18000 ppm
propene (115-07-1)	
LC50 Inhalation - Rat	> 688 mg/m ³
Propane (74-98-6)	
LC50 Inhalation - Rat [ppm]	> 280000 ppm (literature)

Skin corrosion/irritation	Not classified (Based on available data, the classification criteria are not met)
Serious eye damage/irritation	Not classified (Based on available data, the classification criteria are not met)
Respiratory or skin sensitisation	Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	Not classified (Based on available data, the classification criteria are not met)

GC 42

Safety Data Sheet

according to the WHS Regulations

Aspiration hazard	Not classified (Based on available data, the classification criteria are not met)
GC 42	
Vaporizer	Container fitted with a sealed spray attachment
Potential adverse human health effects and symptoms	No additional information available. No harmful effects are to be expected if used properly. The contained ingredients can be harmful, but they are hermetically enclosed in the article and can not be released. The dismantling of the article is prohibited.

SECTION 12: Ecological information

According to the National Code of Practice for the Preparation of Material Safety Data Sheets, Environmental classification information is not mandatory. Information relevant for GHS classification is available on request

12.1. Ecotoxicity

Ecology - general	Due to the consistency along with the low water solubility of the product a bioavailability is unlikely.
Hazardous to the aquatic environment, short-term (acute)	Not classified (Not applicable)
Hazardous to the aquatic environment, long-term (chronic)	Not classified (Not applicable)
Other information	Avoid release to the environment.

isobutane (75-28-5)	
LC50 - Fish [1]	24.11 – 147.54 mg/l (Quantitative structure-activity relationship (QSAR))
EC50 - Crustacea [1]	7.02 – 69.43 mg/l (Quantitative structure-activity relationship (QSAR))
ErC50 algae	7.71 – 16.5 mg/l (Quantitative structure-activity relationship (QSAR))
Partition coefficient n-octanol/water (Log Pow)	1.09 – 2.8 (20 °C)

propene (115-07-1)	
LC50 - Fish [1]	43.3 mg/l (72 h; Oncorhynchus mykiss (Rainbow trout); Quantitative structure-activity relationship (QSAR))
EC50 - Crustacea [1]	28.2 mg/l (48 h; daphnia; Quantitative structure-activity relationship (QSAR))
Partition coefficient n-octanol/water (Log Kow)	1.77 (20 °C)

12.2. Persistence and degradability

isobutane (75-28-5)	
Persistence and degradability	Readily biodegradable.
propene (115-07-1)	
Persistence and degradability	Readily biodegradable in water.
Propane (74-98-6)	
Persistence and degradability	Readily biodegradable in water.

12.3. Bioaccumulative potential

isobutane (75-28-5)	
Partition coefficient n-octanol/water (Log Pow)	1.09 – 2.8 (20 °C)
Bioaccumulative potential	Bioaccumulation unlikely.
propene (115-07-1)	
Partition coefficient n-octanol/water (Log Kow)	1.77 (20 °C)
Bioaccumulative potential	Low bioaccumulation potential (Log Kow < 4).

GC 42

Safety Data Sheet

according to the WHS Regulations

Propane (74-98-6)	
Bioaccumulative potential	Low bioaccumulation potential (Log Kow < 4).

12.4. Mobility in soil

isobutane (75-28-5)	
Partition coefficient n-octanol/water (Log Pow)	1.09 – 2.8 (20 °C)

propene (115-07-1)	
Partition coefficient n-octanol/water (Log Kow)	1.77 (20 °C)

12.5. Other adverse effects

Ozone	Not classified (Not applicable)
Other adverse effects	No additional information available

SECTION 13: Disposal considerations

Regional legislation (waste)	Disposal must be done according to official regulations.
Waste treatment methods	Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	Container under pressure. Do not drill or burn even after use.
Additional information	Flammable vapours may accumulate in the container.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID

ADR	IMDG	IATA	RID
14.1. UN number or ID number			
UN 3150	UN 3150	UN 3150	UN 3150
14.2. UN proper shipping name			
HYDROCARBON GAS REFILLS FOR SMALL DEVICES	HYDROCARBON GAS REFILLS FOR SMALL DEVICES	Hydrocarbon gas Refills for small devices	HYDROCARBON GAS REFILLS FOR SMALL DEVICES
Transport document description			
UN 3150 HYDROCARBON GAS REFILLS FOR SMALL DEVICES, 2.1, (D)	UN 3150 HYDROCARBON GAS REFILLS FOR SMALL DEVICES, 2.1	UN 3150 Hydrocarbon gas Refills for small devices, 2.1	UN 3150 HYDROCARBON GAS REFILLS FOR SMALL DEVICES, 2.1
14.3. Transport hazard class(es)			
2.1	2.1	2.1	2.1
14.4. Packing group			
Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards			
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No
No supplementary information available			

GC 42

Safety Data Sheet

according to the WHS Regulations

14.6. Special precautions for user

Overland transport

Classification code (ADR)	6F
Limited quantities (ADR)	0
Excepted quantities (ADR)	E0
Packing instructions (ADR)	P209
Mixed packing provisions (ADR)	MP9
Transport category (ADR)	2
Special provisions for carriage - Loading, unloading and handling (ADR)	CV9
Special provisions for carriage - Operation (ADR)	S2
Tunnel restriction code (ADR)	D

Transport by sea

Limited quantities (IMDG)	0
Excepted quantities (IMDG)	E0
Packing instructions (IMDG)	P003
EmS-No. (Fire)	F-D
EmS-No. (Spillage)	S-U
Stowage category (IMDG)	B
Stowage and handling (IMDG)	SW2
MFAG-No	115

Air transport

PCA Excepted quantities (IATA)	E0
PCA Limited quantities (IATA)	Forbidden
PCA limited quantity max net quantity (IATA)	Forbidden
PCA packing instructions (IATA)	201
PCA max net quantity (IATA)	1kg
CAO packing instructions (IATA)	201
CAO max net quantity (IATA)	15kg
Special provisions (IATA)	A802
ERG code (IATA)	10L

Rail transport

Classification code (RID)	6F
Limited quantities (RID)	0
Excepted quantities (RID)	E0
Packing instructions (RID)	P209
Mixed packing provisions (RID)	MP9
Transport category (RID)	2
Special provisions for carriage - Loading, unloading and handling (RID)	CW9
Colis express (express parcels) (RID)	CE2
Hazard identification number (RID)	23

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations specific for the product in question

Australian Industrial Chemicals Introduction Scheme (AICIS)

Australian Inventory of Industrial Chemicals (AICIS Inventory) status All the chemicals contained in this product are listed introductions

GC 42

Safety Data Sheet

according to the WHS Regulations

15.2. International agreements

No additional information available

SECTION 16: Other information

Indication of changes			
Section	Changed item	Change	Comments
	General	Modified	
1.2	Use of the substance/mixture	Modified	
8.2	Personal protective equipment	Modified	
9	Physical and chemical properties	Modified	
11	Toxicological information	Modified	
12.	Ecotoxicological information	Modified	

Data sources

Abbreviations and acronyms

European Chemicals Agency, <http://echa.europa.eu/>. manufacturer.

CAS-No. - Chemical Abstract Service number

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE - Acute Toxicity Estimate

CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008

DNEL - Derived-No Effect Level

EC50 - Median effective concentration

ED - Endocrine disrupting properties

EC-No. - European Community number

EN - European Standard

IATA - International Air Transport Association

IMDG - International Maritime Dangerous Goods

IOELV - Indicative Occupational Exposure Limit Value

LC50 - Median lethal concentration

LD50 - Median lethal dose

NOEC - No-Observed Effect Concentration

OECD - Organisation for Economic Co-operation and Development

N.O.S. - Not Otherwise Specified

OEL - Occupational Exposure Limit

PBT - Persistent Bioaccumulative Toxic

PNEC - Predicted No-Effect Concentration

REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006

RID - Regulations concerning the International Carriage of Dangerous Goods by Rail

SDS - Safety Data Sheet

STP - Sewage treatment plant

TLM - Median Tolerance Limit

TRGS - Technical Rules for Hazardous Substances

VOC - Volatile Organic Compounds

WGK - Water Hazard Class

vPvB - Very Persistent and Very Bioaccumulative

NOAEL - No-Observed Adverse Effect Level

NOAEC - No-Observed Adverse Effect Concentration

LOAEL - Lowest Observed Adverse Effect Level

Revision date

02/06/2023

GC 42

Safety Data Sheet

according to the WHS Regulations

Classification	
Flam. Gas 1A	H220
Press. Gas (Comp.)	H280

Full text of H-statements	
Flam. Gas 1A	Flammable gases, Category 1A
Press. Gas (Comp.)	Gases under pressure : Compressed gas
H220	Extremely flammable gas
H280	Contains gas under pressure; may explode if heated

SDS AU HILTI

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.